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Docket No. AUS920010472US1 ***PATENT***

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Craddock et al.** §
§ Group Art Unit: **2141**
Serial No. **09/886,186** §
§ Examiner: **Shingles, Kristie D.**
Filed: **June 21, 2001** §
§
For: **Apparatus and Method for Routing Internet Protocol Frames Over a System Area Network** §

Commissioner for Patents
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APPEAL BRIEF (37 C.F.R. 41.37)

This brief is in furtherance of the Notice of Appeal, filed in this case on September 6, 2005.

The fees required under § 41.20(B)(2), and any required petition for extension of time for filing this brief and fees therefore, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

REAL PARTY IN INTEREST

The real party in interest in this appeal is the following party: International Business Machines Corporation, as reflected in the Assignment recorded on June 21, 2001, at Reel 011953, Frame 0898.

RELATED APPEALS AND INTERFERENCES

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are no such appeals or interferences.

STATUS OF CLAIMS

A. TOTAL NUMBER OF CLAIMS IN APPLICATION

Claims in the application are: 1-42.

B. STATUS OF ALL THE CLAIMS IN APPLICATION

1. Claims canceled: None.
2. Claims withdrawn from consideration but not canceled: None.
3. Claims pending: 1-42.
4. Claims allowed: None.
5. Claims rejected: 1-42.
6. Claims objected to: None.

C. CLAIMS ON APPEAL

The claims on appeal are: 1-42.

STATUS OF AMENDMENTS

There are no amendments after the Final Rejection that was mailed July 27, 2005.

SUMMARY OF CLAIMED SUBJECT MATTER

Applicants' independent claim 1 describes a method of transmitting data packets from a system area network device to an external network device. (Specification page 4, lines 3-6 and page 5, lines 1-4.) Data generated by a host process is passed to a host channel adapter that utilizes an InfiniBand (IB) protocol as its networking protocol for data communications. (Specification page 4, lines 10-15.) The data is passed from the host channel adapter directly to an Internet Protocol (IP) router that uses Internet Protocol as its networking protocol for data communications. (Specification page 4, lines 10-15.) The router is connected directly to the host channel adapter. (Specification page 4, lines 3-17 and page 35, lines 21-27.) The router is also coupled to an external network that utilizes Internet Protocol as its networking protocol for data communications. (Specification page 4, lines 3-6 and page 5, lines 1-4.)

Applicants' independent claim 9 describes an apparatus for transmitting data packets from a system area network device to an external network device. (Specification page 4, lines 3-6 and page 5, lines 1-4.) The apparatus includes means for passing data generated by a host process to a host channel adapter that utilizes an InfiniBand (IB) protocol as its networking protocol for data communications and means for passing the data from the host channel adapter directly to an Internet Protocol (IP) router that uses Internet Protocol as its networking protocol for data communications. (Specification page 4, lines 10-15.) The router is connected directly to the host channel adapter. (Specification page 4, lines 3-17 and page 35, lines 21-27.) The router is also coupled to an external network that utilizes Internet Protocol as its networking protocol for data communications. (Specification page 4, lines 3-6 and page 5, lines 1-4.)

Applicants' independent claim 17 describes a computer program product in a computer readable medium for transmitting data packets from a system area network device to an external network device. (Specification page 4, lines 3-6, page 5, lines 1-4, and page 44, lines 1-13.) The computer program product includes first instructions for passing data generated by a host process to a host channel adapter that utilizes an InfiniBand (IB) protocol as its networking protocol for data communications and second instructions for passing the data from the host channel adapter directly to an Internet Protocol (IP) router that uses Internet Protocol as its networking protocol

for data communications. (Specification page 4, lines 10-15 and page 44, lines 1-13.) The router is connected directly to the host channel adapter. (Specification page 4, lines 3-17, page 35, lines 21-27, and page 44, lines 1-13.) The router is also coupled to an external network that utilizes Internet Protocol as its networking protocol for data communications. (Specification page 4, lines 3-6, page 5, lines 1-4, and page 44, lines 1-13.)

Applicants' independent claim 25 describes a method of routing data between a system area network and an external network. (Specification page 4, lines 3-6 and page 5, lines 1-4.) Data is received within an Internet Protocol (IP) router from a host channel adapter that utilizes an InfiniBand (IB) protocol as its network protocol for data communications. (Specification page 4, lines 10-15.) The Internet Protocol router utilizes Internet Protocol as its networking protocol for data communications. (Specification page 4, lines 10-15.) The Internet Protocol router is connected directly to the host channel adapter. (Specification page 4, lines 3-17 and page 35, lines 21-27.) A routing header of the data is parsed. An output port of the router is identified based on the parsing of the routing header. The data is sent out of the router via the identified output port. (Specification page 4, line 29 through page 5, line 4.)

Applicants' claim 26 depends from claim 25 and describes wherein identifying an output port of the router includes examining one of an InfiniBand Global Router Header's Destination Global Identifier and an IPv6 Destination Address. (Specification page 5, lines 5-13.)

Applicants' independent claim 31 describes a computer program product in a computer readable medium for routing data between a system area network and an external network. (Specification page 4, lines 3-6, page 5, lines 1-4, and page 44, lines 1-13.) The computer program product includes first instructions for receiving data within an Internet Protocol (IP) router from a host channel adapter that utilizes an InfiniBand (IB) protocol as its network protocol for data communications (Specification page 4, lines 10-15 and page 44, lines 1-13.), second instructions for parsing a routing header of the data, third instructions for identifying an output port of the router based on the parsing of the routing header (Specification page 4, line 29 through page 5, line 4 and page 44, lines 1-13.), and fourth instructions for sending the data out of the router via the identified output port. The Internet Protocol router utilizes Internet Protocol as its networking protocol for data communications. (Specification page 4, lines 10-15 and page 44, lines 1-13.) The Internet Protocol router is connected directly to the host channel adapter. (Specification page 4, lines 3-17, page 35, lines 21-27, and page 44, lines 1-13.)

Applicants' claim 32 depends from claim 31 and describes wherein the third instructions for identifying an output port of the router include instructions for examining one of an InfiniBand Global Router Header's Destination Global Identifier and an IPv6 Destination Address. (Specification page 5, lines 5-13.)

Applicants' independent claim 37 describes an apparatus for routing data between a system area network and an external network. (Specification page 4, lines 3-6 and page 5, lines 1-4.) The apparatus includes means for receiving, within an Internet Protocol (IP) router, data from a host channel adapter that utilizes an InfiniBand (IB) protocol as its network protocol for data communications (Specification page 4, lines 10-15.), means for parsing a routing header of the data, means for identifying an output port of the router based on the parsing of the routing header (Specification page 4, line 29 through page 5, line 4.), and means for sending the data out of the router via the identified output port (Specification page 4, line 29 through page 5, line 4.). The Internet Protocol router utilizes Internet Protocol as its networking protocol for data communications. The Internet Protocol router is connected directly to the host channel adapter. (Specification page 4, lines 3-17 and page 35, lines 21-27.)

Applicants' claim 38 depends from claim 37 and includes wherein the means for identifying an output port of the router includes means for examining one of an InfiniBand Global Router Header's Destination Global Identifier and an IPv6 Destination Address. (Specification page 5, lines 5-13.)

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. GROUND OF REJECTION 1 (Claims 1-25, 27-31, 33-37, and 39-42)

Claims 1-25, 27-31, 33-37, and 39-42 stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,459,698 issued to *Acharya* in view of U.S. Patent Application Publication 2004/0128398 published by *Petley*.

B. GROUND OF REJECTION 2 (Claims 26, 32, and 38)

Claims 26, 32, and 38 stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,459,698 issued to *Acharya* in view of U.S. Patent Application Publication 2004/0128398 published by *Petley*, and further in view of U.S. Patent Application Publication 2001/0049740 published by *Karpoff*.

ARGUMENT

A. GROUND OF REJECTION 1 (Claims 1-25, 27-31, 33-37, and 39-42)

Claims 1-25, 27-31, 33-37, and 39-42 stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,459,698 issued to *Acharya* in view of U.S. Patent Application Publication 2004/0128398 published by *Pettey*. This position is not well founded.

The combination of *Acharya* and *Pettey* does not render these claims unpatentable because the references, either singly or in combination, do not describe passing data from the host channel adapter directly to an Internet Protocol router or the router being connected directly to the host channel adapter.

Acharya teaches a router that is configured for sending and receiving data packets on an InfiniBand (IB) network. The router has been modified to include a host channel adapter so that the router can be coupled to both an InfiniBand network and to an Internet Protocol network. The router includes a host channel adapter that communicates with the InfiniBand network, an IP-to-InfiniBand controller, and an Internet Protocol interface that communicates with the Internet Protocol network.

The router includes an Internet Protocol interface for connection with an Internet Protocol domain. The router receives an Internet Protocol (IP) data packet having an Internet Protocol header. The router has an Internet Protocol to InfiniBand controller and a mapping table. The controller parses the type of service (TOS) field in the Internet Protocol header and determines a service level. The controller outputs the Internet Protocol packet on the InfiniBand network within an InfiniBand packet according to the determined service level. The host channel adapter (HCA) included within the router is configured for generating the InfiniBand packet based on a request from the controller. See Column 7, line 63 through column 8, line 21.

Applicants' claim 1 is representative of Applicants' independent claims 9 and 17. These claims describe transmitting data packets from a system area network device to an external network device. Data generated by a host process is passed to a host channel adapter that utilizes an InfiniBand (IB) protocol as its networking protocol for data communications. The data is passed from the host channel adapter directly to an Internet Protocol (IP) router that uses Internet Protocol as its networking protocol for data communications. The router is connected directly to

the host channel adapter. The router is also coupled to an external network that utilizes Internet Protocol as its networking protocol for data communications.

Regarding claim 1, the Examiner states that *Acharya* teaches passing the data from the host channel adapter directly to an Internet Protocol (IP) router that uses Internet Protocol as its networking protocol for data communications, the router being connected directly to the host channel adapter, the router also being coupled to an external network that utilized Internet Protocol as its networking protocol for data communications at column 2, lines 28-41, column 3, line 45 through column 4, line 22, and column 7, line 52 through column 8, line 7.

Applicants claim passing data from the host channel adapter directly to an Internet Protocol (IP) router. Column 2, lines 28-41 of *Acharya* describes a router that includes a controller and a mapping table and that outputs an Internet Protocol packet on an InfiniBand network within an InfiniBand packet according to a determined services level. This section of *Acharya* does not teach passing data directly from a host channel adapter to an Internet Protocol router. The router of *Acharya* includes the host channel adapter within the router itself. Thus, data cannot be passed from the host channel adapter to the router because the host channel adapter is part of the router. In *Acharya*, data is not passed to the router. It is passed within the router.

Column 3, line 45 through column 4, line 22 of *Acharya* teaches service levels. The service level attribute permits a packet traversing the InfiniBand network to operate at one of sixteen available service levels. The router can select an available service level based on a selected priority of the WQE. See column 4, lines 14-22. This section of *Acharya* does not teach passing data directly from a host channel adapter to an Internet Protocol router.

Column 7, line 52 through column 8, line 7 of *Acharya* teaches a router that includes the host channel adapter within the router. The router of *Acharya* includes a host channel adapter (HCA 90) within the router itself. "With reference to FIGS. 2 and 4, router 20 includes an HCA 90 having a differentiated service to service layer (DS_SL) mapping table 92." [Emphasis added.] Column 7, line 67 through column 8, line 2. Because the router of *Acharya* includes the host channel adapter within the router itself, *Acharya* cannot teach passing data from a host channel adapter directly to a router. The data of *Acharya* may be passed within the router but it is not passed from a host channel adapter to the router.

Applicants' claim 1 also describes the router being connected directly to the host channel adapter. The Examiner refers to the same sections, i.e. column 2, lines 28-41, column 3, line 45 through column 4, line 22, and column 7, line 52 through column 8, line 7, of *Acharya* as teaching the router being connected directly to the host channel adapter. As discussed above, however, column 7, line 67 through column 8, line 2 of *Acharya* explicitly teaches the host channel adapter being included within the router and does not teach the router "being connected directly to the host channel adapter" as claimed by Applicants.

Acharya teaches a router that includes a host channel adapter and does not teach a router that is connected directly to the host channel adapter. The Examiner does not rely on any art other than *Acharya* to teach the feature of the router being connected directly to the host channel adapter. Therefore, *Acharya* does not render Applicants' claims unpatentable because *Acharya* does not teach the router being connected directly to the host channel adapter. Further, *Acharya* teaches away from a combination with any other art because *Acharya* teaches that the router itself includes the host channel adapter.

The Examiner has rejected these claims as being unpatentable over the combination of *Acharya* and *Pettey*. The combination of *Acharya* and *Pettey* does not render these claims unpatentable because the references, either singly or in combination, do not describe passing data from the host channel adapter directly to an Internet Protocol router or the router being connected directly to the host channel adapter.

Applicants' claim 25 is representative of Applicants' independent claims 31 and 37. These claims describe routing data between a system area network and an external network. Data is received within an Internet Protocol (IP) router from a host channel adapter that utilizes an InfiniBand (IB) protocol as its network protocol for data communications. The Internet Protocol router utilizes Internet Protocol as its networking protocol for data communications. The Internet Protocol router is connected directly to the host channel adapter. A routing header of the data is parsed. An output port of the router is identified based on the parsing of the routing header. The data is sent out of the router via the identified output port.

The Examiner states that *Acharya* teaches the features of these claims except for teaching outputting the data via an identified output port. The Examiner relies on *Pettey* to teach selection of an output port based on parsed header data.

The Examiner does not rely on any art other than *Acharya* as teaching passing data from the host channel adapter directly to an Internet Protocol router or the router being connected directly to the host channel adapter. As discussed above, neither *Acharya* nor *Pettey* teaches passing data from the host channel adapter directly to an Internet Protocol router or the router being connected directly to the host channel adapter. Further, *Acharya* teaches away from a combination with any other art because *Acharya* teaches that the router itself includes the host channel adapter.

Because neither *Acharya* nor *Pettey* teaches passing data from the host channel adapter directly to an Internet Protocol router or the router being connected directly to the host channel adapter, the combination of *Acharya* and *Pettey* does not teach passing data from the host channel adapter directly to an Internet Protocol router or the router being connected directly to the host channel adapter in combination with outputting the data via an identified output port. Therefore, the combination of *Acharya* and *Pettey* does not render Applicants' claims unpatentable.

B. GROUND OF REJECTION 2 (Claims 26, 32, and 38)

Claims 26, 32, and 38 stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,459,698 issued to *Acharya* in view of U.S. Patent Application Publication 2004/0128398 published by *Pettey*, and further in view of U.S. Patent Application Publication 2001/0049740 published by *Karpoff*. This position is not well founded.

Applicants' claim 26 depends from claim 25, claim 32 depends from claim 31, and claim 38 depends from claim 37. Claims 26, 32, and 38 describe identifying an output port of the router including examining one of an InfiniBand Global Router Header's Destination Global Identifier and an IPv6 Destination Address.

The Examiner states that the combination of *Acharya* and *Pettey* does not teach identifying an output port of the router including examining one of an InfiniBand Global Router Header's Destination Global Identifier and an IPv6 Destination Address. The Examiner relies on *Karpoff* to teach these features.

Karpoff teaches the function of routing being performed by an InfiniBand data center router where that traffic can be routed using the addressing scheme provided by IP version 6. *Karpoff* does not teach passing data from the host channel adapter directly to an Internet Protocol router or the router being connected directly to the host channel adapter.

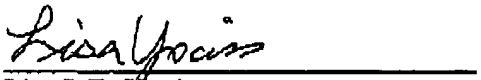
The combination of *Acharya*, *Pettey*, and *Karpoff* does not render Applicants' claims unpatentable because the combination does not teach passing data from the host channel adapter directly to an Internet Protocol router or the router being connected directly to the host channel adapter in combination with identifying an output port of the router including examining one of an InfiniBand Global Router Header's Destination Global Identifier and an IPv6 Destination Address.

C. CONCLUSION

The combination of *Acharya* and *Pettey* does not render Applicants' claims 1-25, 27-31, 33-37, and 39-42 unpatentable because the combination does not describe, teach, or suggest passing data from the host channel adapter directly to an Internet Protocol router or the router being connected directly to the host channel adapter.

The combination of *Acharya*, *Pettey*, and *Karpoff* does not render Applicants' claims 26, 32, and 38 unpatentable because the combination does not describe, teach, or suggest passing data from the host channel adapter directly to an Internet Protocol router or the router being connected directly to the host channel adapter in combination with identifying an output port of the router including examining one of an InfiniBand Global Router Header's Destination Global Identifier and an IPv6 Destination Address.

Therefore, Applicants' claims are believed to be patentable over the cited prior art.



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CLAIMS APPENDIX

The text of the claims involved in the appeal reads:

1. A method of transmitting data packets from a system area network device to an external network device, comprising:

passing data generated by a host process to a host channel adapter that utilizes an InfiniBand (IB) protocol as its networking protocol for data communications; and

passing the data from the host channel adapter directly to an Internet Protocol (IP) router that uses IP as its networking protocol for data communications, the router being connected directly to the host channel adapter, the router also being coupled to an external network that utilizes IP as its networking protocol for data communications.

2. The method of claim 1, wherein passing the data generated by a host process to a host channel adapter included in a host includes invoking an Internet Protocol (IP) over InfiniBand (IB) device driver in the host.

3. The method of claim 2, wherein passing data generated by a host process to a host channel adapter includes creating an IP over IB Queue Pair in the host channel adapter for use with the IP over IB device driver.

4. The method of claim 2, wherein the step of passing data generated by a host process to a host channel adapter is performed in response to an I/O Transmit transaction being received by the IP over IB device driver.

5. The method of claim 4, wherein the I/O Transmit transaction originates from one of a user level program and a kernel level program.

6. The method of claim 4, wherein the I/O Transmit transaction includes one or more pointers to one or more memory regions which contain the data, and wherein the I/O Transmit transaction further includes one of a destination address and destination address handle.

7. The method of claim 1, wherein passing data generated by a host process to a host channel adapter includes using a Post Send verb to instruct the host channel adapter to send data from system memory to a designated destination.

8. The method of claim 1, wherein the data is passed to the host channel adapter as one of a Raw Datagram and a Unreliable Datagram.

9. An apparatus for transmitting data packets from a system area network device to an external network device, comprising:

means for passing data generated by a host process to a host channel adapter that utilizes an InfiniBand (IB) protocol as its networking protocol for data communications; and

means for passing the data from the host channel adapter directly to an Internet Protocol (IP) router that uses IP as its networking protocol for data communications, the router being connected directly to the host channel adapter, the router also being coupled to an external network that utilizes IP as its networking protocol for data communications.

10. The apparatus of claim 9, wherein the means for passing the data generated by a host process to a host channel adapter in a host includes means for invoking an Internet Protocol (IP) over InfiniBand (IB) device driver in the host.

11. The apparatus of claim 10, wherein the means for passing data generated by a host process to a host channel adapter includes means for creating an IP over IB Queue Pair in the host channel adapter for use with the IP over IB device driver.

12. The apparatus of claim 10, wherein the means for passing data generated by a host process to a host channel adapter operates in response to an I/O Transmit transaction being received by the IP over IB device driver.

13. The apparatus of claim 12, wherein the I/O Transmit transaction originates from one of a user level program and a kernel level program.

14. The apparatus of claim 12, wherein the I/O Transmit transaction includes one or more pointers to one or more memory regions which contain the data, and wherein the I/O Transmit transaction further includes one of a destination address and destination address handle.

15. The apparatus of claim 9, wherein the means for passing data generated by a host process to a host channel adapter includes means for using a Post Send verb to instruct the host channel adapter to send data from system memory to a designated destination.

16. The apparatus of claim 9, wherein the data is passed to the host channel adapter as one of a Raw Datagram and a Unreliable Datagram.

17. A computer program product in a computer readable medium for transmitting data packets from a system area network device to an external network device, comprising:

first instructions for passing data generated by a host process to a host channel adapter that utilizes an InfiniBand (IB) protocol as its networking protocol for data communications; and

second instructions for passing the data from the host channel adapter directly to an Internet Protocol (IP) router that uses IP as its networking protocol for data communications, the router being connected directly to the host channel adapter, the router also being coupled to an external network that utilizes IP as its networking protocol for data communications.

18. The computer program product of claim 17, wherein the first instructions for passing the data generated by a host process in a host to a host channel adapter include instructions for invoking an Internet Protocol (IP) over InfiniBand (IB) device driver in the host.

19. The computer program product of claim 18, wherein the first instructions for passing data generated by a host process to a host channel adapter include instructions for creating an IP over IB Queue Pair in the host channel adapter for use with the IP over IB device driver.

20. The computer program product of claim 18, wherein the first instructions for passing data generated by a host process to a host channel adapter are executed in response to an I/O Transmit transaction being received by the IP over IB device driver.

21. The computer program product of claim 20, wherein the I/O Transmit transaction originates from one of a user level program and a kernel level program.

22. The computer program product of claim 20, wherein the I/O Transmit transaction includes one or more pointers to one or more memory regions which contain the data, and wherein the I/O Transmit transaction further includes one of a destination address and destination address handle.

23. The computer program product of claim 17, wherein the first instructions for passing data generated by a host process to a host channel adapter include instructions for using a Post Send verb to instruct the host channel adapter to send data from system memory to a designated destination.

24. The computer program product of claim 17, wherein the data is passed to the host channel adapter as one of a Raw Datagram and a Unreliable Datagram.

25. A method of routing data between a system area network and an external network, comprising:

receiving, within an Internet Protocol (IP) router, data from a host channel adapter that utilizes an InfiniBand (IB) protocol as its network protocol for data communications, the IP router utilizing IP as its networking protocol for data communications, the IP router being connected directly to the host channel adapter;

parsing a routing header of the data;

identifying an output port of the router based on the parsing of the routing header; and

sending the data out of the router via the identified output port.

26. The method of claim 25, wherein identifying an output port of the router includes examining one of an InfiniBand Global Router Header's Destination Global Identifier and an IPv6 Destination Address.

27. The method of claim 25, wherein if the data is an Unreliable Datagram and the identified output port is not an InfiniBand output port, only an InfiniBand Transport Header associated with the data is discarded.

28. The method of claim 25, wherein sending the data out of the router includes creating an InfiniBand link layer header for the data.

29. The method of claim 28, wherein the InfiniBand link layer header identifies a host channel adapter receive queue.

30. The method of claim 28, wherein the InfiniBand link layer header identifies an external network.

31. A computer program product in a computer readable medium for routing data between a system area network and an external network, comprising:

first instructions for receiving data within an Internet Protocol (IP) router from a host

channel adapter that utilizes an InfiniBand (IB) protocol as its network protocol for data communications, the IP router utilizing IP as its networking protocol for data communications, the IP router being connected directly to the host channel adapter;

second instructions for parsing a routing header of the data;

third instructions for identifying an output port of the router based on the parsing of the routing header; and

fourth instructions for sending the data out of the router via the identified output port.

32. The computer program product of claim 31, wherein the third instructions for identifying an output port of the router include instructions for examining one of an InfiniBand Global Router Header's Destination Global Identifier and an IPv6 Destination Address.

33. The computer program product of claim 31, wherein if the data is an Unreliable Datagram and the identified output port is not an InfiniBand output port, only an InfiniBand Transport Header associated with the data is discarded.

34. The computer program product of claim 31, wherein the fourth instructions for sending the data out of the router include instructions for creating an InfiniBand link layer header for the data.

35. The method of claim 34, wherein the InfiniBand link layer header identifies a host channel adapter receive queue.

36. The method of claim 34, wherein the InfiniBand link layer header identifies an external network.

37. An apparatus for routing data between a system area network and an external network, comprising:

means for receiving, within an Internet Protocol (IP) router, data from a host channel adapter that utilizes an InfiniBand (IB) protocol as its network protocol for data communications, the IP router utilizing IP as its networking protocol for data communications, the IP router being connected directly to the host channel adapter;

means for parsing a routing header of the data;

means for identifying an output port of the router based on the parsing of the routing header; and

means for sending the data out of the router via the identified output port.

38. The apparatus of claim 37, wherein the means for identifying an output port of the router includes means for examining one of an InfiniBand Global Router Header's Destination Global Identifier and an IPv6 Destination Address.

39. The apparatus of claim 37, wherein if the data is an Unreliable Datagram and the identified output port is not an InfiniBand output port, only an InfiniBand Transport Header associated with the data is discarded.

40. The apparatus of claim 37, wherein the means for sending the data out of the router includes creating an InfiniBand link layer header for the data.

41. The apparatus of claim 40, wherein the InfiniBand link layer header identifies a host channel adapter receive queue.

42. The apparatus of claim 40, wherein the InfiniBand link layer header identifies an external network.

EVIDENCE APPENDIX

There is no evidence to be presented.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.